

IN THE CLAIMS

Claims 1-15 (canceled).

16 (new). A method for use in the tuning of a musical instrument having multiple tone generators, each said tone generator capable of producing one or more different order partials, the method comprising:

measuring at least two partials for each of a first at least one tone generator;

calculating the inharmonicity of said first at least one tone generator based upon said measured at least two partials;

estimating the inharmonicity of a second at least one tone generator based upon the calculated inharmonicity of said first at least one tone generator; and

calculating a target frequency for at least one tone generator based upon said estimated inharmonicity of said second at least one tone generator.

17 (new). The method of claim 16, wherein said calculating a target frequency is further based upon said calculated inharmonicity of said first at least one tone generator.

18 (new). The method of claim 16, wherein said estimating the inharmonicity is further based upon an estimation of the slope of said calculated inharmonicity of said first at least one tone generator.

19 (new). The method of claim 16, wherein said second at least one tone generator comprises substantially all tone generators of the multiple tone generators.

20. (new). The method of claim 16, further comprising displaying tuning information based upon said calculated target frequency for said at least one tone generator.

21 (new). The method of claim 16, further comprising adjusting one of said at least one tone generator based upon its respective calculated target frequency.

22 (new). A method for use in the tuning of a musical instrument having multiple tone generators, each said tone generator capable of producing one or more different order partials, the method comprising the steps of:

(a) measuring at least one partial of a first tone generator of the multiple tone generators;

(b) calculating a target frequency for at least one tone generator of the multiple tone generators based upon said measured at least one partial of said first tone generator;

(c) measuring at least one partial of a second tone generator of the multiple tone generators; and

(d) calculating a target frequency for at least one tone generator of the multiple tone generators based upon said measured at least one partial of said second tone generator and said measured at least one partial of said first tone generator.

23 (new). The method of claim 22, wherein said at least one tone generator of step (b) includes said second tone generator.

24 (new). The method of claim 22, further comprising repeating steps (c) and (d) to calculate target frequencies for other tone generators of the multiple tone generators, wherein the target frequency of each respective tone generator is calculated before its respective at least one partial is measured.

25 (new). The method of claim 24, wherein said steps (c) and (d) are repeated until target frequencies have been calculated for substantially all tone generators.

26 (new). The method of claim 22, wherein said first tone generator is a reference tone generator.

27 (new). The method of claim 26, wherein the sequence of tone generators measured is selected by a technician.

28 (new). The method of claim 22, further comprising adjusting at least one tone generator based on its respective calculated target frequency.

29 (new). The method of claim 22, further comprising displaying tuning information based upon said calculated target frequency for its respective at least one tone generator.

30 (new). A method for use in the tuning of a musical instrument having multiple tone generators, each said tone generator capable of producing one or more different order partials, the method comprising the steps of:

(a) providing a tuning calculator capable of calculating tuning frequencies for the musical instrument based upon measured partials;

(b) measuring at least one partial of at least one tone generator of the multiple tone generators and providing the measurements to the tuning calculator;

(c) calculating a target frequency for each of at least one tone generator based upon said measurements;

wherein said calculated target frequency of each respective at least one tone generator is calculated before its respective at least one partial is measured.

31 (new). The method of claim 30, further comprising providing a reference target frequency for a reference tone generator prior to step (b).

32 (new). The method of claim 30, further comprising adjusting at least one tone generator based on its respective calculated target frequency.

33 (new). The method of claim 32, where said calculating a target frequency for each of at least one tone generator calculates target frequencies only for tone generators that have not been adjusted.

34 (new). The method of claim 30, further comprising displaying an indicator representative of tuning information relating to said calculated target frequency for said at least one tone generator.

35 (new). A method for use in the tuning of a musical instrument having multiple tone generators, each said tone generator capable of producing one or more different order partials, the method comprising the steps of:

(a) providing at least one target frequency for a selected tone generator of the multiple tone generators;

(b) measuring at least one partial of said selected tone generator;

(c) displaying tuning information based upon said at least one target frequency and said measured at least one partial; and

(d) measuring at least one other partial of said selected tone generator;

wherein steps (b), (c), and (d) occur substantially simultaneously.

36 (new). The method of claim 35, wherein said tuning information comprises at least one calculated difference between said at least one target frequency and said measured at least one partial.

37 (new). The method of claim 35, further comprising calculating at least one inharmonicity value, each inharmonicity value representing a relationship among at least two said measured partials.

38 (new). The method of claim 37, further comprising calculating a target frequency for each of at least one other tone generator of the multiple tone generators based upon said at least one inharmonicity value.

39 (new). The method of claim 35, further comprising adjusting said selected tone generator substantially simultaneously with steps (b), (c), and (d).

40 (new). The method of claim 36, wherein said displaying tuning information comprises displaying a phase difference.